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What is claimed is:

1. Method for producing a contact structure on a structured surface of a substrate, the method comprising:

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producing a first conductive layer on the structured surface, the first conductive layer comprising tungsten;

producing a conductive seed layer on the first layer; and

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electroplating the contact structure on the seed layer.

2. Method as claimed in claim 1, wherein at least a sublayer of the first conductive layer is produced by means of CVD deposition.

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3. Method as claimed in claim 1, wherein the substrate includes a semiconductor substrate.

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4. Method as claimed in claim 3, wherein the semiconductor substrate is a silicon substrate.

5. Method as claimed in claim 1, wherein the structured surface is a surface of an opening in the substrate.

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6. Method as claimed in claim 5, wherein the opening at least in one direction comprises an aspect ratio of greater than or equal to 1:4.

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7. Method as claimed in claim 5, wherein the opening extends into the substrate in the vertical direction at a depth of greater than or equal to 20 μm .

8. Method as claimed in claim 1, wherein the seed layer comprises a multiple-layer structure.

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9. Method as claimed in claim 8, wherein the seed layer comprises a multiple-layer structure, one or several layers of same comprising a metallic barrier material.
- 5 10. Method as claimed in claim 9, wherein the multiple-layer structure of the seed layer includes a stack comprising barrier metals .
- 10 11. Method as claimed in claim 10, wherein the barrier metals are selected from the group comprising Ta, TaN, Ti, TiN and TiW.
- 15 12. Method as claimed in claim 8, wherein the seed layer comprises a multiple-layer structure, the method further including selectively removing the contact structure, at least one of the layers of the multiple-layer structure of the seed layer acting as a stop layer in the selective removal.
- 20 13. Method as claimed in claim 1, which further includes selectively removing the contact structure, the first conductive layer acting as a stop layer in the selective removal.
- 25 14. Method as claimed in claim 1, wherein the first conductive layer comprises a multiple-layer structure.
- 30 15. Method as claimed in claim 14, wherein the multiple-layer structure of the first conductive layer includes one or multiple metallic barrier layers.
- 35 16. Method as claimed in claim 14, wherein the multiple-layer structure includes an insulating layer which may consist of a multiple stack of insulating layers.
17. Method as claimed in claim 1, wherein the first conductive layer comprises at least one layer which consists only of tungsten or tungsten alloy.

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18. Method as claimed in any of claims 1, which further includes the step of selectively removing material from the reverse side of the substrate, the first conductive layer
5 representing a stop layer in the selective removal.

19. Method as claimed in claim 18, wherein the first conductive layer comprises a multiple-layer structure, at least one of the layers of the multiple-layer structure
10 representing a stop layer for the selective removal of the material of the substrate.

20. Method as claimed in claim 18, wherein the selective removal includes wet chemical etching.
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21. Method as claimed in claim 1, wherein the structured surface is a surface of a via hole which extends to a reverse side of the substrate in the vertical direction from a front side of the substrate, the method further including
20 the step of a reverse-side removal of material of the substrate.

22. Method as claimed in claim 21, wherein the reverse-side removal of material of the substrate includes etching,
25 wherein the first conductive layer represents a stop layer.

23. Method as claimed in claim 22, wherein, after the selective removal of the material of the substrate, chemical-mechanical polishing is performed, whereby the contact
30 structure is exposed on the reverse side, and a via structure is formed.

24. Method as claimed in claim 23, wherein a conductive connecting layer is deposited on the whole area of the reverse side of the substrate after the reverse side of the contact structure has been exposed.
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25. Method as claimed in claim 23 wherein bumps are formed on the reverse side for electrically connecting the contact structure.